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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,364	04/29/2004	James Wlos	4023	3363
31424	7590	03/24/2005	EXAMINER	
BABCOCK IP LLC 24154 LAKESIDE DRIVE LAKE ZURICH, IL 60047			LEON, EDWIN A	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

14.11

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/709,364	WLOS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Edwin A. León	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/04</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/707,912 in view of D'Addario (U.S. Patent No. 6,568,964).

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Application 10/707,912 does not recite the plurality of spring fingers as being a plurality of outer spring fingers.

D'Addario discloses an interface having a plurality of outer spring fingers (32).

See Figs. 1-2.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interface of Application No. 10/707,912 by including a plurality of outer spring fingers as taught in D'Addario in order to reduced the likelihood of intermittent electrical discontinuity. (D'Addario; Column 1, Lines 15-17).

This is a provisional obviousness-type double patenting rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 26-29 are rejected under 35 U.S.C. 102(e) as being anticipated by D'Addario (U.S. Patent No. 6,568,964). With regard to Claims 26 and 29, D'Addario discloses a spring ring (14), comprising: a collar (14) adapted for mounting within a

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male connector (10) and a plurality of deflectable protrusions (32) extending from the collar (14). See Figs. 1-2.

The limitations “adapted for use with a connector interface between a female connector with a bore having an inner diameter surface and a male connector” and “adapted to contact the inner diameter surface in an interference fit upon mating of the male connector with the female connector” have been given little patentable weight since it has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

The limitation “the spring ring is formed by one of machining, stamping, forming, and injection molding” has been given little patentable weight since the method of forming the device is not germane to the issue of patentability of the device itself.

With regard to Claim 27, D’Addario discloses the deflectable protrusions (32) being spring fingers (32). See Figs. 1-2.

With regard to Claim 28, D’Addario discloses the mounting of the collar (14) being via a press-fit upon a sleeve (12) of the male connector (10). See Figs. 1-2.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10 and 12-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. (U.S. Patent No. 4,963,105) in view of D'Addario (U.S. Patent No. 6,568,964). With regard to Claims 1-3, 5-8, 10, 12-13, 15, Lewis et al. discloses a connector interface for connecting to a cylindrical female connector body (21) having an outer diameter surface and a bore (Fig. 1) with an inner diameter surface (25), comprising: a male connector body (12), a front end portion of a sleeve (16) of the male connector body (12) adapted to insert within the bore (Fig. 1); and a first spring (32). See Figs. 1-2.

However, Lewis et al. doesn't show a plurality of outer spring fingers biased for an interference fit upon the outer diameter surface, the first spring located on an outer diameter of the sleeve, the first spring is located by a first groove formed in the outer diameter of the sleeve and each of the plurality of spring fingers having an angled face.

D'Addario discloses an interface having a plurality of outer spring fingers (32) biased for an interference fit upon an outer diameter surface, and each of the plurality of outer spring fingers (32) having an angled face (36). See Figs. 1-2.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interface of Lewis et al. by including a plurality of outer spring fingers biased for an interference fit upon an outer diameter surface, and each of the plurality of outer spring fingers having an angled face as taught in D'Addario in order to reduced the likelihood of intermittent electrical discontinuity. (D'Addario; Column 1, Lines 15-17)

The combination of Lewis et al. and D'Addario discloses the claimed invention except for the first spring located on an outer diameter of the sleeve and the first spring is located by a first groove formed in the outer diameter of the sleeve. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the first spring located on an outer diameter of the sleeve and the first spring is located by a first groove formed in the outer diameter of the sleeve, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

With regard to Claim 4, Lewis et al. discloses the first spring (32) being a canted coil spring (32). See Figs. 1-2.

With regard to Claim 9, Lewis et al. discloses the first spring (32) being dimensioned whereby the first spring (32) elastically deforms between the sleeve (16) and the inner diameter surface (25) upon mating of the male connector body (12) with the female connector body (21). See Figs. 1-2.

With regard to Claim 14, Lewis et al. discloses an inner conductor contact (13) positioned coaxially within a sleeve (16) bore by an insulator (15). See Figs. 1-2.

With regard to Claim 16, Lewis et al. discloses the sleeve (16) is formed as a separate component press-fit into place within the male connector body (12). See Figs. 1-2.

With regard to Claim 17, Lewis et al. discloses the sleeve (16) being press-fit within the male connector body (12) up to an internally projecting shoulder (17) of the male connector body (12). See Figs. 1-2.



With regard to Claims 18-24, Lewis et al. discloses a connector interface between a female connector (21) and a male connector (12) and a first spring (32), the sleeve (16) adapted for insertion within a bore (Fig. 1) of the female connector (21) whereby the spring (32) is deformed between the sleeve (16) and an inner diameter surface (25) of the bore (Fig. 1). See Figs. 1-2.

However, Lewis et al. doesn't show a plurality of outer spring fingers biased for an interference fit upon the outer diameter surface, the first spring located on an outer diameter of the sleeve, the first spring is located by a first groove formed in the outer diameter of the sleeve and each of the plurality of outer spring fingers having an angled face.

D'Addario discloses an interface having a plurality of outer spring fingers (32) biased for an interference fit upon an outer diameter surface, and each of the plurality of outer spring fingers (32) having an angled face (36). See Figs. 1-2.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interface of Lewis et al. by including a plurality of outer spring fingers biased for an interference fit upon an outer diameter surface, and each of the plurality of outer spring fingers having an angled face as taught in D'Addario in order to reduced the likelihood of intermittent electrical discontinuity. (D'Addario; Column 1, Lines 15-17)

The combination of Lewis et al. and D'Addario discloses the claimed invention except for the first spring located on an outer diameter of the sleeve and the first spring is located by a first groove formed in the outer diameter of the sleeve. It would have



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been obvious to one having ordinary skill in the art at the time the invention was made to have the first spring located on an outer diameter of the sleeve and the first spring is located by a first groove formed in the outer diameter of the sleeve, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

7. Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. (U.S. Patent No. 4,963,105) in view of D'Addario (U.S. Patent No. 6,568,964) and Buenz (U.S. Patent No. 6,793,529). The combination of Lewis et al. and D'Addario discloses the claimed invention as shown above except for the female connector being one of an SMA and a Type N connector.

Buenz discloses the use of female Type N connectors. See Column 4, Lines 9-14.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the interface of Lewis et al. and D'Addario by using female Type N connectors as taught in Buenz in order to make the connector more versatile.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Harwath (U.S. Patent No. 5,795,188), Schwartz (U.S. Patent No.


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3,739,076), Wlos (U.S. Patent No. 6,824,415) and Bout (U.S. Patent No. 4,915,651) disclose connector interfaces having female and male connector bodies, sleeves and springs.

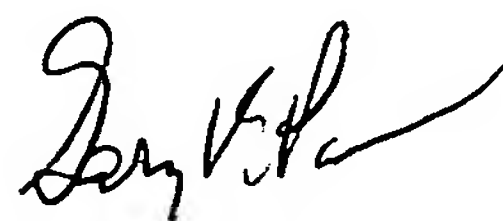
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (571) 272-2008. The examiner can normally be reached on Monday - Friday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800, extension 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edwin A. Leon  
AU 2833



Gary Paumen  
Primary Examiner

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March 16, 2005